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Chief, Intelligence Information Staff, OPR 24 April 1958
ATTN : [REDACTED] 25X1A9a
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Requirements on trends in the engineering industries of Communist China.

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- (b) CIA. FBIS, Daily Report (Far East), 27 Mar 58, p. CCC 17. OUG.
- (c) CIA. FBIS, Daily Report (Far East), 15 Apr 58, p. EBB 13. OUG. 25X1A2g
- (d) [REDACTED]
- (e) [REDACTED]
- (f) State, Hong Kong. Dep 746, 18 Mar 58. U.
- (g) CIA. FBIS Summary no 1573, 10 Feb 58, Weekly Information Report on Communist China (no. 190), p. 1. OUG.
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1. Background.

During the First Five-Year Plan (1953-1957) the engineering industries experienced rapid but not altogether balanced development. Shortages of raw materials have slowed production in a number of engineering plants. In transportation equipment and diesel engines plant construction and design of products was based on the assumption later proved inaccurate, of adequate supplies of liquid fuels. Production of agricultural machinery, particularly tractors, was based on the assumption that large-scale mechanization of agriculture was economically feasible. Chinese industrial planners, following Soviet specifications, erected costly large-scale plants which, being highly mechanized, absorbed little of China's rapidly growing population and took a long time to construct.

As the Second Five-Year Plan begins there are indications of strenuous efforts to correct economic imbalances which developed during the First Five-Year Plan and to achieve a greater degree of self-sufficiency in the production of capital goods. For a number of reasons the CHICOMs may wish to depend less on Soviet assistance. As the level of Soviet aid has apparently been severely cut, the CHICOMs must rely

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primarily on their own resources. Fragmentary evidence suggests that the CHIGOs will make substantial modification of Soviet design and techniques in order to: (1) conserve foreign exchange, (2) employ more people, (3) reduce construction periods, etc. These factors will necessitate readjustments particularly in the engineering industries at the very time these industries are shifting priorities to give direct and indirect support to the massive program for agricultural development, particularly in the form of chemical engineering equipment for fertilizer plants and irrigation equipment. The stated aims are somewhat contradictory and it is likely that some strains will develop. The Chinese engineer, moreover, will play a crucial role in adapting Soviet and other technology to the peculiar conditions in China. This will require great flexibility, as many of the techniques used in Soviet engineering require a high degree of automation.

Detailed information is required on the nature and extent of programs to effect readjustments for more balanced economic growth. The questions below are intended to elicit information on general trends in the engineering industries, particularly the extent of its response to the influences which developed during the First Five-Year Plan. This type of information is considered essential for accurate assessment of economic capabilities, vulnerabilities and intentions. Questions 6 and 7 are specific questions not directly related to the broad purpose of this requirement are considered desirable but not essential.

2. Requirements.

A. General requirements.

Questions 1 through 5 apply to all plants that can be visited. They are considered suitable to be addressed to personnel at the plant director level.

(1) Was your plant designed according to Soviet engineering drawings and equipped with Soviet machinery? How much did it cost to build by these standards? Could large savings be effected if a similar plant were designed according to Chinese engineering drawings using Chinese equipment?

(2) When Soviet engineering drawings are modified by Chinese engineers can excessively mechanized operations be eliminated so as to employ more workers?

(3) Are Soviet techniques and methods suited to peculiar Chinese conditions in your industry? If not, what measures have been taken to effect greater adaptability to Chinese conditions?

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(4) How many Chinese engineers do you employ on your staff? Of these, how many were educated in the USSR? Are the latter applying the Soviet techniques which they learned to the planning of factories to be built in China? How are they modifying Soviet engineering practice to suit Chinese conditions?

(5) What proportion of equipment for new factories will be produced in China? What capital equipment will be imported and from what countries?

(6) Has your plant sustained production losses due to shortages of raw materials? If so, have other materials been substituted? Other corrective measures?

(7) Which of the products of your plant are now exported? Are new products to be added to the export list in the near future?

(8) What, if any, effect will decentralization have on your plant or industry?

B. Specific requirements.

Questions 9 through 25 apply to specific plants. They are considered suitable to be addressed to personnel at the plant director or lower level. The conditions at various plants can also be ascertained by personal observation.

(9) Mukden Machine Tool Plant No. 1 -- How much was invested to reconstruct and expand this plant? What is the maximum annual production of this plant? Does the plant always operate on two shifts?

(10) Wuhai Heavy Machine Tool Plant -- How much did it cost to construct this plant? What proportion of the total cost was for machinery and equipment? What is the maximum annual production capacity of this plant? How many workers are employed at this plant?

(11) Harbin Measuring Instruments and Cutting Tools Plant -- How much did it cost to construct this plant? What proportion of the total cost was for machinery and equipment? What is the maximum annual production capacity of this plant?

(12) Lan-chou Petroleum Equipment Plant -- How many workers are employed at this plant? How much did it cost to construct this plant? What proportion of the total cost was for machinery and equipment? What is the ministry affiliation of this plant?

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(13) Loyang Mining Machinery Plant -- How much did it cost to construct this plant? What proportion of the total cost was for machinery and equipment? How many workers are employed at this plant? What is the ministry affiliation of this plant?

(14) Yularki Heavy Machinery Plant -- How many workers are employed at this plant?

(15) Shadon Mining Machinery and Equipment Plant -- What is the maximum annual production of this plant?

(16) Tai-yuan Heavy Machinery Plant -- Although the construction of this plant is not entirely completed, partial production began in 1957. Is the plant presently operating on more than a one shift basis, and how many shifts will be working when construction is completed?

(17) Changchun Automobile Plant No. 1 -- It has been announced that the Changchun Automobile Plant No. 1 has succeeded in making a coal-gas-powered motor suitable for irrigation purposes. a/ Is there any evidence that large scale production of these motors has been undertaken? Is there any evidence that this plant is producing or plans to produce any other type of irrigation equipment?

(18) Changchun Automobile Plant No. 1 -- It has been announced that 15,000 tractors will be serial produced at the Changchun Automobile Plant No. 1. b/ Is there any evidence that this plant is now producing or plans to produce tractors? If so, what type of tractor, and what type of fuel will it use?

(19) Changchun Automobile Plant No. 1 -- Is there any intention of increasing the proportion of gas-generator trucks and other non-petroleum burning trucks at this plant? What proportion of trucks produced at this plant are returned to the plant as defective? Are any buses assembled here? How many shifts are being worked at this plant?

(20) Jining Automobiles and Assembling Plant -- Are any automobile parts besides gasoline engines and generators made at this plant? For what type of vehicle is the new CH-570 gasoline engine planned? Where are the products of this plant shipped? Are any vehicles produced at this plant? Are there any plans to assemble vehicles here? If so, what types?

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(21) Tientsin Tractor Plant -- It has been announced that the Tientsin Tractor Plant has produced the first wheeled tractor model T-240. g/ This model is based on the Soviet type DTZ-5 (Russian: Тракторный завод-5 (model number)), otherwise known as the "Belarus", named for the Belorussian SSR in which the Minsk Tractor Plant is located. What is the rate of production of this type of tractor? Are there any plans for future expansion of this plant?

(22) Wuhai General Machine Plant -- It has been announced that the state owned Wuhai General Machine Plant recently completed field tests of a small universal tractor. d/ Is there any evidence that tractors are being produced at this plant? If so, what type(s) and how many?

(23) Loyang Tractor Plant -- It has been announced that the Loyang Tractor Plant will have an annual output of 15,000 Soviet DT-54 type tractors. g/ It was later announced that this plant will produce several thousand smaller tractors in addition to the Soviet DT-54 type, f/ and that annual production at this plant will be 30,000 tractors per year. g/ When will series production of tractors begin at this plant? Will both the Soviet DT-54 type tractor and smaller tractors be produced at this plant? If so, what will be the annual production of each type of tractor?

(24) Are there any shortages of tractor spare parts in China? If so, which types of tractors are most lacking in spare part replacement? Which types of imported tractors have been in the greatest need of repair?

(25) It has been announced that the chemical fertilizer industry of Communist China is scheduled to have a rapid development under the Second Five-Year Plan and that most of the machinery and equipment needed for the manufacture of chemical fertilizer will be manufactured in Communist China. h/ Is there any evidence that new chemical equipment plants will be constructed, and if so, where will they be located? Is there any evidence that plants presently engaged in the manufacture of other types of industrial equipment will shift their production to chemical equipment?

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3. Sources.

It is possible that the source of Report [REDACTED] could give information on question no. 22 above.

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In regard to questions (1) through (4) it is felt that the most satisfactory answers would be given by a plant director or an Asian source, since the former might be reluctant to admit to a Westerner that the Chinese did not aspire to the most modern technology.

4. Any questions regarding this requirement should be addressed to [REDACTED]

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